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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,564	02/11/2004	Unal Gazyakan	ZAHFRI P607US	2782
20210	7590	01/05/2006	EXAMINER	
DAVIS & BUJOLD, P.L.L.C. FOURTH FLOOR 500 N. COMMERCIAL STREET MANCHESTER, NH 03101-1151			LORENCE, RICHARD M	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 01/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/776,564	<b>Applicant(s)</b> GAZYAKAN ET AL.	
	<b>Examiner</b> Richard M. Lorence	<b>Art Unit</b> 3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 7-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This action is responsive to the amendment filed on November 25, 2005. The specification and claims 7-9, 11 and 12 have been amended and new claims 13 and 14 have been added. Claims 7-14 are currently pending.

#### ***Drawings***

The replacement drawings were received on November 25, 2005. These drawings are acceptable.

#### ***Specification***

The disclosure is objected to because of the following informalities: In line 1 of paragraph [041] "New" should be deleted. Appropriate correction is required.

#### ***Claim Objections***

Claim 8 is objected to because of the following informalities: In line 2 of claim 8 after "(7)" the comma should be deleted; in line 3 after "(4)" - - , and - - should be inserted and in lines 4-5 ", by means of which ... output shafts (4)" is redundant in view of the amendment to lines 2-3 and should be deleted. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8 and 9 as amended are each incorrect regarding the function of the gear wheel. The gear wheel transfers a portion of the driving torque only to one of the drive shafts, i.e. the shaft 4. It is suggested that in line 2 of claim 8 and in line 4 of claim 9 "to the" should be changed to - - to one of the - -.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Reuter et al. (US 5,199,325 A).

As seen in Figures 1-3 and 6, Reuter et al. shows a transfer case (10) for a motor vehicle with part-time four-wheel drive, with a controllable clutch (65) for distributing a driving torque supplied via a drive shaft (43) to at least first and second output shafts (44, 45). The second output shaft (45) is connectable to the drive shaft (43) via the clutch (65). The clutch (65) is actuatable by an electric motor (100, Figure 6) and a drive converter device (66, 107) arranged between the electric motor and the clutch (65)

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for converting rotary motion of the electric motor (100) into translational actuating motion for the clutch (65). The electric motor (100) is completely accommodated within a housing (46) of the transfer case (10), and controls operation of a gear wheel (62) which facilitates transfer of a portion of a driving torque from the drive shaft (43) to the second output shaft (45).

Claims 13 and 14 are further rejected under 35 U.S.C. 102(b) as being anticipated by Teraoka (DE 3908478 A1). As seen in Figures 2 and 3, Teraoka shows a transfer case (7) for a motor vehicle with part-time four-wheel drive, with a controllable clutch (63) for distributing a driving torque supplied via a drive shaft (5) to at least first and second output shafts (11, 9). The second output shaft (9) is connectable to the drive shaft (5) via the clutch (63). The clutch (63) is actuatable by an electric motor (65) and a drive converter device (67) arranged between the electric motor and the clutch (63) for converting rotary motion of the electric motor (65) into translational actuating motion for the clutch (63). The electric motor (65) is completely accommodated within a housing (29) of the transfer case (7), and controls operation of a gear wheel (37) which facilitates transfer of a portion of a driving torque from the drive shaft (5) to the second output shaft (9).

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 7, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reuter et al. (US 5,199,325 A) in view of Morrill (US 5,260,620 A). Reuter et al. shows a transfer case (10) with a controllable clutch (65), for a motor vehicle with part-time four-wheel drive, for distributing a driving torque supplied via a drive shaft (43) to at least two output shafts (44, 45). One of the output shafts (45) can be connected to the drive shaft (43) via the clutch (65). The clutch (65) is can be actuated by an electric motor (100, Figure 6) and a drive converter device (66, 107) arranged between the electric motor and the clutch (65) for converting rotary motion of the electric motor (100) into translational actuating motion for the clutch (65). The electric motor (100) is accommodated within a housing (46) of the transfer case (10). Reuter et al. discloses the motor as being a three phase, multi-pole, variable reluctance DC motor, rather than an asynchronous induction motor as presently claimed. Morrill provides evidence that the asynchronous induction motor was known at the time the invention was made. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the well known asynchronous induction motor of the type shown in Morrill as the means for providing rotary motion to the drive converter device of Reuter et al., since the two motors were known to be equivalent means for converting electrical energy into rotary mechanical motion.

Regarding claims 10 and 12, note the drive converter device of Reuter et al. comprises the rotatable spindle (107) and a rotatably fixed nut (66). During closure of the clutch (65) the spindle (107) rotates in the same direction as drive shaft (43).

Claims 7, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teraoka (DE 3908478 A1) in view of Morrill (US 5,260,620 A). Teraoka shows a transfer case (7) with a controllable clutch (63), for a motor vehicle with part-time four-wheel drive for distributing a driving torque supplied via a drive shaft (5) to at least two output shafts (11, 9). One of the output shafts (9) is connectable to the drive shaft (5) via the clutch (63). The clutch (63) is actuatable by an electric motor (65) and a drive converter device (67) arranged between the electric motor and the clutch (63) for converting rotary motion of the electric motor (65) into translational actuating motion for the clutch (63). The electric motor (65) is completely accommodated within a housing (29) of the transfer case (7), and controls operation of a gear wheel (37) which facilitates transfer of a portion of a driving torque from the drive shaft (5) to the second output shaft (9). Teraoka does not disclose an asynchronous induction motor as presently claimed. Morrill provides evidence that the asynchronous induction motor was known at the time the invention was made. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the well known asynchronous induction motor of the type shown in Morrill as the means for providing rotary motion to the drive converter device of Teraoka, since the two motors were known to be equivalent means for converting electrical energy into rotary mechanical motion.

Regarding claims 10 and 11, note the drive converter device of Teraoka comprises the rotatable nut (93) and a rotatably fixed spindle (83B). During closure of the clutch (63) the spindle (107) rotates in the same direction as drive shaft (5).

***Allowable Subject Matter***

Claims 8 and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments with respect to claims 7-14 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Stockton '777 shows the combination of a transmission and an induction motor wherein the motor is cooled by the same fluid that lubricates the transmission.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the




shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard M. Lorence whose telephone number is (571) 272-7094. The examiner can normally be reached on Mondays through Fridays from 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Richard M. Lorence  
Primary Examiner  
Art Unit 3681

Lorence/rml